

Substitute for form 1449A/PTO (modified)		Application Number	10/685208
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets if necessary)</i>		Filing Date	October 14, 2003
		First Named Inventor	Xudong Fan
		Art Unit	2828
		Examiner Name	Unknown
		Attorney Case Number	58392US002

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### U.S. Patent Documents

Exam. Init.*	Cite No.	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code (if known)			
<i>M</i>	A1	US- 2002/0079453 A1	06-27-2002	Tapalian et al	
<i>M</i>	A2	US- 2002/0097401 A1	07-25-2002	Maleki et al	
<i>M</i>	A3	US- 2002/0172457 A1	11-21-2002	Tapalian et al	
<i>M</i>	A4	US- 6,490,039 B2	12-03-2002	Maleki et al	
<i>M</i>	A5	US- 2002/0192680 A1	12-19-2002	Chan et al	
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		Ctry. Code	Number-KindCode (if known)				
<i>M</i>	B1	WO	01/40757 A2	06-07-2001			
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### OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Exam. Init.*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
<i>M</i>	C1	JOHNSON, B.R.; "Theory of Morphology-Dependent Resonances: Shape Resonances and Width Formulas", <i>J. Opt. Soc. Am. A</i> (Feb. 1993); Vol. 10, No. 2; pp. 343-352
<i>M</i>	C2	LITTLE, B.E., et al; "Pedestal Antiresonant Reflecting Waveguides for Robust Coupling to Microsphere Resonators and for Microphotonic Circuits", <i>Optics Letters</i> (Jan. 1, 2000); Vol. 25, No. 1; pp. 73-75
<i>M</i>	C3	LAINE, J.-P., et al; "Microsphere Resonator Mode Characterization by Pedestal Anti-Resonant Reflecting Waveguide Coupler", <i>IEEE Photonics Technology Letters</i> (Aug. 2000); Vol. 12, No. 8; pp. 1004-1006
<i>M</i>	C4	BURLAK, G., et al; "Electromagnetic Oscillations in a Multilayer Spherical Stack", <i>Optics Communications</i> , (1 June 2000); Vol. 180; Elsevier Science B.V.; pp. 49-58
<i>M</i>	C5	LAINE, J.-P., et al; "Acceleration Sensor Based on High-Q Optical Microsphere Resonator and Pedestal Antiresonant Reflecting Waveguide Coupler", <i>Sensors and Actuators A</i> (2001); Vol. 93; Elsevier Science B.V.; pp. 1-7
<i>M</i>	C6	CHAN, S., et al; "Identification of Gram Negative Bacteria Using Nanoscale Silicon Microcavities", <i>Communications to the Editor, Journal of American Chemical Society</i> (Nov. 2001); Vol. 123, pp. 11797-11798
<i>M</i>	C7	BURLAK, G., et al; "Electromagnetic Eigenoscillations and Fields in a Dielectric Microsphere with Multilayer Spherical Stack", <i>Optics Communications</i> (1 Jan. 2001); Vol. 187, Elsevier Science B.V.; pp. 91-105

\*Examiner: *[Signature]*

Date Considered: *2/10/06*

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<i>m</i>	C8	CHAN, S., et al; "Nanoscale Silicon Microcavities for Biosensing", <i>Materials Science and Engineering C</i> (2001); Vol. 15, Elsevier Science B.V.; pp. 277-282
<i>JM</i>	C9	SPILLANE, S.M., et al; "Ultralow-Threshold Raman Laser Using a Spherical Dielectric Microcavity", <i>Letters to Nature, Nature</i> (7 Feb. 2002); Vol. 415, Macmillan Magazines Ltd.; pp. 621-623
<i>m</i>	C10	LUGO, J.E., et al; "Porous Silicon Multilayer Structures: A Photonic Band Gap Analysis", <i>Journal of Applied Physics</i> (15 April 2002); Vol. 91, No. 8; pp. 4966-4972
<i>m</i>	C11	BURLAK, G., et al; "Transmittance and Resonance Tunneling of the Optical Fields in the Microspherical Metal-Dielectric Structures", <i>Optics Communications</i> (15 May 2002); Vol. 206, Elsevier Science B.V.; pp. 27-37
<i>m</i>	C12	VOLLMER, F., et al; "Protein Detection by Optical Shift of a Resonant Microcavity", <i>Applied Physics Letters</i> (27 May 2002); Vol. 80, No. 21; pp. 4057-4059
<i>m</i>	C13	KRIOUKOV, E., et al; "Integrated Optical Microcavities for Enhanced Evanescent-Wave Spectroscopy", <i>Optics Letters</i> (Sept. 1, 2002); Vol. 27, No. 17; pp. 1504-1506
<i>m</i>	C14	ARMANI, D.K., et al; "Ultra-High-Q Toroid Microcavity on a Chip", <i>Letters to Nature, Nature</i> (27 Feb. 2003); Vol. 421, Nature Publishing Group; pp. 925-928
<i>PR</i>	C15	TAPALIAN, C., et al; "High-Q Silica Microsphere Optical Resonator Sensors Using Stripline-Pedestal Anti-Resonant Reflecting Optical Waveguide Couplers"; <i>Proceedings from SPIE, Photonics West 2003</i> (Jan. 25-31, 2003); Vol. 4969; Laser Resonators and Beam Control VI; Item 4969-30; pp. 11-22

#### RELATED U.S. APPLICATIONS - DO NOT PRINT

Examiner's Initials	Serial No.	Filing Date	Title
<i>m</i>	10/685,049	10-14-2003	HYBRID SPHERE-WAVEGUIDE RESONATORS

\*Examiner: *[Signature]*

Date Considered:

*2/10/04*

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		Doc. Number-(Kind Code if Known)			
A	A1	US- 6,389,197	05/14/2002	Illichenko et al.	
M	A2	US- 2002/0041730	04/11/2002	Sercel et al.	
	A3	US-			
	A4	US-			
	A5	US-			
	A6	US-			
	A7	US-			
	A8	US-			
	A9	US-			
	A10	US-			
	A11	US-			

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		Ctry. Code	Number-KindCode (if known)				
M	B1	WO	02/16986	02/28/2002			
	B2						
	B3						
	B4						
	B5						
	B6						
	B7						

## OTHER DOCUMENTS

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	C1		
	C2		
	C3		

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	C1	Boyd et al., "Sensitive disk resonator photonic biosensor", Applied Optics, Vol. 40, No. 31, November 1, 2001, pp. 5742-5747.	
	C2	Krioukov et al., "Sensor based on an integrated optical microcavity", Optics Letters, Vol. 27, No. 7, April 1, 2002, pp. 512-514	
	C3	Blair et al., "Resonant-enhanced evanescent-wave fluorescence biosensing with cylindrical optical cavities", Applied Optics, Vol. 40, No. 4, February 1, 2001, pp. 570-582.	
	C4	Yunfeng et al., "Chemical sensors based on hydrophobic porous sol-gel films and ATR-FTIR spectroscopy", Sensors and Actuators B, Elsevier Sequoia S.A., Vol. B36, No. 1, 2, and 3, October 1996, pp. 517-521.	
	C5	Crisan et al., "Sol-Gel Preparation of Thin Films for Integrated Optics", 10 <sup>th</sup> International Symposium on Electron Devices for Microwave and Optoelectronic Applications, 18.-19., November 2002, Manchester, UK., pp. 205-210.	
	C6	Coffer et al., "Strategies Toward the Development of Integrated Chemical Sensors Fabricated from Light Emitting Porous Silicon", Proceedings of the SPIE, Vol. 3226, 1997, pp. 168-179.	
	C7	Shibata et al., "Laser Emission from Dye-Doped Organic-Inorganic Particles of Mircocavity Structure", Journal of Sol-Gel Science and Technology, Vol. 8, 1997, pp. 959-964.	
	C8	Wark et al., "Incorporation of organic dye molecules in nanoporous crystals for the development of hexagonal solid state microlasers", Proceedings of the SPIE, Vol. 4456, 2001, pp. 57-67.	
	C9	Pipino et al., "Evanescent wave cavity ring-down spectroscopy with a total-internal-reflection minicavity", Review of Scientific Instruments, American Institute of Physics, Vol. 68, No. 8, August 8, 1997, pp. 2978-2989.	

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